THE CARD CATALOGUE OF A GREAT PUBLIC LIBRARY.*

By John S. Billings, Director New York Public Library.

Every one admits that a large library must have an author catalogue, but there are some students, scholars, and librarians who are more or less doubtful about the relative importance of a subject catalogue, and as to whether it would not be wiser to use the money which such a catalogue costs in employing experts in the different departments of the library to guide and instruct readers, or in purchasing more books. In favor of this view it is urged that the great majority of readers do not want a subject catalogue, and will not use it if they can help it. They want to go directly to the shelves, or else that the attending librarian shall tell them whether a certain book is in the library, or what is the best edition of a certain book, or what are the best books on a certain subject, and become impatient when they are requested to examine the catalogue and fill out order slips for the books selected.

So far as the New York Public Library is concerned this statement is not correct for ninety per cent. of the readers, but it is true that a considerable number of the casual or occasional readers who come to a library for information on some specific point, do not know how to use a catalogue, are not acquainted with the rule on the title-page of the Washington Directory, viz., "To find a name in this Directory you must know how to spell it," do not know that McCarty is classed with the "Macs" and St. Bridget with the Saints, never read the directions on the guide cards, and when they do find a card containing the title they want, cannot copy it legibly and fully on the order slip. This proves that it is necessary to have a special attendant to show such people how to use the catalogue, but it does not prove that the catalogue is useless.†

It is also said that the person who is making an original research upon the history of some particular place, period, theory, method, or invention, has little use for the ordinary subject catalogue, because the data he wants are for the most part contained in single chapters, or essays, or periodical or newspaper articles, to which the titles of the books or periodicals give him either no guidance or very little. His ideal library is one in which he can go to the shelves and search for himself, and can also go to one of the librarians and ask him "What are the latest statistics about the birth rate in different countries as compared with the birth rate in Georgia?" or, "What were the ceremonies at the coronation of Louis Napoleon?" or, "In what cities in the United States is acetylene used for illumination?" or, "What are the opinions of scholars as to the origin of the Russian alphabet?" or, "Have you a list of the marriages and deaths in Bury St. Edmunds in the first half of the 18th century?" or, "What are the text-books on analytical geometry now used in France and Germany?" or, "Where can I find the best criticism of the theories of Karl Marx?" or, "Have you a print giving the correct costume of a Sicilian peasant woman?" and in each case receive a prompt, definite answer. In other words he wants his bibliography peptonized, and given to him condensed.

It would be perfectly possible to organize a library staff which should contain persons capable of answering at least nine-tenths of all questions of this kind in general history, early American history, Oriental history, Chemistry, Physics, Engineering, Music, Maps, etc., etc., after they had made themselves familiar with the resources of the library, each in his own department. But would their employment do away with the need for a subject catalogue? I think not - in fact most of these experts, if in a large library, would desire a subject catalogue and would make one for their own use - but even if they did not, they will occasionally be absent, and will sometimes die, and the substitute, or new professor, will not be able to fill the place for a considerable period of time.

^{*} Read before New York Library Club, May 9, 1901.

[†] A reader in search of a book on "Factory legislation in Europe with special reference to the hours of labor for women and children," which was entered in our catalogue under the subjects of "Labor (Female) — Hours of" and "Labor (child) — Hours of," gave up his search in despair when he failed to find the title under "Labor — Hours of," though the guide card for this latter subject plainly referred him to the two other related subjects.

What does the subject catalogue cost? Let us say five cents per title, which would make the cost of the present subject catalogue of the New York Public Library to be about \$30,000. It has been five years in making - or has cost \$6000 per year. We might have employed two or three experts for the same money during that time. Would it have been wise to do so and omit the subject cataloguing? Probably some who read this paper will be surprised at the above figures for cost and it may be of some interest to give the data on which they are based so far as the Astor collection is concerned. When this card catalogue was commenced the books in the library were located by a number indicating a tier or case of shelves, and a letter indicating the shelf in that tier - thus 416 C meant that the book ought to be found on the third shelf of case 416. This had to be changed to a relative location mark under a new system of classification. Had there been no readers, the easiest and cheapest method would have been to commence at one end of the library and catalogue every book and pamphlet by author and subject, putting on each card the new classification mark which would show its location. But there were readers, and it was desirable to increase their number, hence the new books must be catalogued and made accessible as fast as possible. The number of purchases was increased - some large collections were presented - and the total accessions from these two sources and from exchanges have averaged over 30,000 pieces per year. The system of classification adopted was in many respects a new one, which required the actual seeing of the books and pamphlets in working out the details; for only a broad outline could be decided on at first.

Books and pamphlets, belonging to every department, were pouring in and these must be located—for which purpose the old system was used temporarily. The result was that when in the course of classification a section was reached which contained a number of these recent additions—the author and subject cards had to be picked out, the new marks substituted for the old ones, the books placed in the new location, and the cards returned to the catalogue. In January, 1896, the cataloguing staff of the library consisted of one cataloguer at the Lenox and two

at the Astor. This force was gradually increased until for the last three years the average force has included 20 cataloguers and 18 copyists, producing about 300,000 cards yearly, or an average of about 1000 cards for each working day. This provided for one set of author cards for the official catalogue in the catalogue room, and one set each of author and subject cards for the public catalogue. In addition about 17.000 index cards for current periodicals were placed in the public catalogue each year. To file these cards in the official and public catalogues has kept three of the cataloguing force busy. The searching in the official catalogue for titles of all purchases except the newest books, and of all gifts, requires the constant work of one person - and often of two. One skilled cataloguer is constantly employed on indexing current periodicals, another on indexing public documents, and another on the manuscripts at the Lenox building.

The chief cataloguer, Mr. Meissner, and his assistant, Mr. Moth, are engaged mainly in supervision and revision work. One cataloguer is kept busy with proof-reading. There remain then 14 cataloguers and 14 copvists actually engaged in preparing catalogue cards. Each of these has one month's vacation during the year, and the cataloguing force must supply the substitutes when places in the reading department are temporarily vacated by reason of vacations or sickness, for the readers department must be kept always efficient. The average production per person has been about 35 cards per day. Many of the readers of this paper will no doubt think that this is a very slow rate of work, and that 50 cards a day per person would be nearer the proper average. I can only say that in my opinion the rate of progress has been a fair one considering the large number of anonymous pamphlets to be looked up in various bibliographical authorities, the great variety of languages, and the requirement of fairly full titles with proper collation.

The preparation of author and subject cards, and the filing them in alphabetical order in the public catalogue, does not by any means complete the proper preparation of this catalogue, and if no more is done the result will often be very unsatisfactory. The pencil headings on the subject cards have been placed there by at least half a dozen differ-

ent persons acting under general instructions, such as, to use substantives instead of adjectives for the first or index word as a rule. making an exception in the case of adjectives indicating nations, races, etc., and for synonomy to follow in general the "A. L. A. list." No two of them ever would, or could, assign the same subject headings to a miscellaneous lot of 100 cards, and no one of them would give precisely the same headings this year to a lot of a thousand cards which he, or she, headed two years ago. As a rule, they give only the main index word, e.g., "Banking," "Commerce," "Shakespeare" - or they will go a step farther and write "Education (History of") "Chemistry, Organic," etc., knowing that these headings are to be revised. furnished with cross-references, and added to by the librarian in charge of the public catalogue, Miss Henderson, This final revision. with the preparation of guide cards and references, can properly only be done by one person, and up to the present that person has had little time to give to this part of her work. The result is that if the inquirer is looking for references to the history of education in Pennsylvania, he may find a thousand or more cards under the heading "Education (History of,") but not classified further. There is also the possibility that half a dozen cards have gone in under "Pennsylvania, Education in." Many important sections have been arranged, and supplied with guide cards and cross-references - and the work is going on - but it will probably be about three years before it will be fairly complete. Absolutely complete it will never be, for such a catalogue in a large growing library will always have some cards wrongly headed, out of place, or obsolete. This last word "obsolete" applies mainly to cards containing references to journal articles. When a new subject of public interest comes up, such as the Spanish-American war, or liquid air, or the Boers, a considerable number of journal articles are indexed for the immediate information of readers. In a year or two, many of these have lost most of their interest, and when the new supplement to Poole's "Index" appears containing them, they are not worth the space they occupy in the card catalogue, and should be removed.

The question, "What shall be done in the way of analytical work?" is one that is al-

ways under discussion in the catalogue department. The numerous general and special encyclopædias, year-books, directories, almanacs, etc., which are essential in the reference department of a large library often contain special articles, statistical tables, etc., which are worth an index card, but the general rule is to rely on those in charge at the readers' desk to point out these sources of information. So long as there are a considerable number of books and pamphlets on hand uncatalogued the decision usually is to defer analytical card making until the separate works have been catalogued, if for no other reason than to prevent the addition of duplicates, yet there are exceptions to this rule, the chief being the indexing of periodicals. As an exception, take Schaff's "The creeds of Christendom," a valuable reference book to be found in most libraries. The subject is so distinct that it seems hardly worth while to make any analyticals for the card catalogue, and yet the reader who wants to see the text of the Heidelberg catechism, or the "original confession" of the Society of Friends, or the Savoy declaration of the Congregational churches may be very glad to find in the catalogue a card telling him that what he wants is in Schaff's "Creeds," and hence we have placed such cards there. The same argument, however, would apply to the list of "Churches in Manhattan and the Bronx," the "Strength of the militia in the several states," the "Population of the largest cities of the earth," the "Statistics of American college fraternities," and "The forty Immortals of the French Academy," all of which are given in the World almanac for 1901, but which we do not index. The question as to whether analytical or index cards shall be made is not usually "Are they worth making?" but "Are they more worth making for this than for something else?" Every number of a daily newspaper contains something that would be of interest to some reader of the next century. even if it be only an obituary notice, but it does not follow that every number of a newspaper should be indexed or even preserved.

Some of the questions which arise in preparing the subject catalogue may be indicated by the subdivisions which have been made for the subject "Commerce," and the crossreferences in connection therewith. The first question is. Should the main subject word be "Commerce" or "Trade"? "Trade" is the word used by Mr. Fortescue in his subject index for the British Museum, probably because he considers it a more comprehensive term than "Commerce," which is usually understood to refer to trade on a large scale. as between nations or communities, rather than to what is colled retail trade. We use the word "Commerce" because of per cent. of our readers would search first under that heading, and we place under "Business" the references to retail trade. The second question is. Should works on the commerce of a country or state be indicated under the name of that country primarily, as is done by Cutter, Fortescue, and others, or under Commerce, History of, regional, or under Commerce, regional, by countries?

Another series of questions relates to crossreferences, and especially as to when a crossreference is to be used in place of duplicating a card for two subjects.

A book on the condition of the agricultural and commercial interests of the United States might properly be referred to under both Agriculture and Commerce, and also, perhaps, still more properly, under Free Trade, but it will usually be sufficient to catalogue it under one subject only, relying on cross-references from the others.

In this library a book is catalogued as to both author and subject before it is accessioned and receives a class mark. The result is that the person who assigns the class mark has the benefit of the cataloguer's opinion as to what the book is about, but sometimes he differs from this opinion, and this may become a subject for discussion.

The following lists of headings used on the guide cards under "Ireland" and "Shakespeare" will give a general idea of the subdivisions and cross-references adopted:

Fenianism, Ireland. See also Ireland, — History Folk lore (Irish). See also Ireland, — Manners, Customs, etc.

Home rule, Ireland. See Ireland. — History 1873-

IRELAND as author:
Government publications. (Public documents)

Ireland as subject:
Ireland. — Bibliography (dated)

 Archæology and antiquities. See also Ireland, — History, (Ancient); Lake dwellings, — Ireland, Dolmans; Round towers; Wells (Holy)
 Refer from Archæology; Antiquities - Census. (dated). See also Ireland. -Statistics; Statistics (Vital), Ireland

Charities. See Charities, — Ireland;
 Poor laws, — Ireland (dated);
 Poor,
 — Ireland

- Commerce, See Commerce, - Ireland

Description, - Scenery, - Travels, etc.
 (dated). See also Ireland, - Geography and Guides; Ireland, - History
 (arranged chronologically)

Refer from Geography, — Ireland; Travels, — Ireland

- Economics. See Economics, - History, Ireland

Ethnology. See Ethnology, — Ireland
 Finance. See Finance,—Ireland (dated);
 Money, — Ireland (dated)

- Gilds. See Gilds, - Ireland

- Geography and Guides. See also Ireland, - Maps, (in Lenox)

Refer from Geography, — Ireland — Government. See Ireland, — History arranged chronologically

History, — Bibliography. See Ireland, —
 Bibliography; General Histories; History by Periods, (dated); Essays and
 Miscellany

See also Biography, (Irish); Catholic Question, — Ireland; Church of Ireland; Church history,— Ireland; Commerce, — Ireland; Education, — Ireland; Genealogy, — Ireland; Heraldry, — Ireland; Ireland, — Descriptive; Land Question, — Ireland; Poor laws, — Ireland

-- Labor. See Labor, -- history, etc., -- Ireland

Literature. See Irish literature; Drama,
 Irish; Essays, — Irish; Fiction, —
 Irish; Poetry, — Irish

Refer from Periodicals, — Ireland Newspapers, — Ireland

 Manners, Customs and Social life. See also Folk lore,— (Irish)
 Refer from Manners and Customs,

- Ireland

- Maps.

Refer from Ireland,— Geography, etc.
— Money. See also Money,— Ireland;

Numismatics, (Irish)

Politics. See Ireland, — History
 Social life. See Ireland, — Manners, —
 Customs, etc.

- Statistics. See also Statistics (Vital),
- Ireland

Refer from Statistics, - Census

- Taxation. See Taxation, - Ireland - Topography. See Ireland, - Descrip-

tions, etc.

— Travels. See Ireland, — Descriptions,

- Travels. See Ireland, - Descriptions etc.

- University question

Vital Statistics. See Ireland, Census;
 Vital Statistics, — Ireland

SHAKESPEARE (William)
Bibliography.

Bibliography.
[Works by him]

Collected works, dated Single plays Doubtful plays Poems Sonnets Selections [Works about him] Shakespeare, William as an archer Bacon question and the Bible Biography and Personalia. See also Shakespeare (Portraits of) (Botany in) Celebrations (Comedies of) Commentaries and criticism. (Commentaries and criticism on a single play follow its text.) Concordances (Contemporaries of) as a dramatist (Emblems in) (England of) (Ethics of) (Euphuisms in) (Folk lore in) in France in Germany (Ghosts in) (Grammar of) (History in) (Home of) See also Shakespeare -Biography and Personalia; Shakespeare - (England of) Illustrations (Language of) See also Shakespeare of); Shakespeare -- (Grammar (Punning in); Shakespeare - (Versification in) (Law in) and Moliere and Montaigne (Names in) Paraphrases Periodicals and Society Publications (Poetry in) (Portraits of) (Punning in) and Racine (Staging of) (Study of) Textual criticism (Theology of) (Tragedy in) in United States (Versification in)

(Woman in) The subdivision of labor which is necessary in a large library gives to some extent the usual unsatisfactory result of such subdivision in that most members of the staff become thoroughly familiar with only a part of the work. Those engaged at the readers' desk rely more on their knowledge of the books than on the catalogue, to which they resort only in case of necessity, and require some time to become familiar with it. They see all the new books as they go through to the shelves, but not all the old ones. On the other hand those who assign subject headings to the cards are not always as familiar with the form in which readers' queries are put as they should be. We try to remedy this by having the classifiers take turns at the readers' desk, and by carefully noting the complaints of readers about the catalogue, and trying to do away with the causes for such complaints, and no doubt with time many of the difficulties will be minimized or entirely removed.

The space occupied by a large card catalogue is a matter that requires careful consideration and sufficient provision. In the new library building on Fifth avenue the public catalogue will be in a room 78 x 85, through which it is necessary to pass to enter the main reading rooms. In this room provision will be made at first for cases to contain two and one half millions of cards, and there will be space for cases for two and one half millions more. These cases have corresponding tables on which the single drawers of cards can be placed when in use. These will provide for a catalogue of about 1,500,000 books - and when this limit is reached an extension of the building will be urgently needed.

When the libraries are moved into the new building there will probably be 800,000 books and pamphlets to be stored in it, requiring a public catalogue of about two million cards. I do not venture to prophesy much about the details of arrangement of this catalogue, but these are some of my hopes:

1. That it will contain an author card for every book and pamphlet in the building, showing its location. This includes the books in the lending part of the library.

- 2. That it will contain one or more subject cards for every book in the reference library not catalogued by subject in the special catalogues connected with the special collections having separate rooms, such as of maps, music, manuscripts, incunabula, public documents, sociology, Jewish collection, Oriental collection, Bibles, genealogy, etc., and also for the most important books in these special
 - 3. That it will also contain subject cards

giving references to important articles in periodicals and transactions for the last ten years so far as these are not obsolete or contained in special card catalogues in other parts of the building.

4. That in this room, or near it, will be a collection of catalogues of other libraries, including that of the British Museum and of the Bibliothèque Nationale of Paris (printed) and a card catalogue of authors of the books in the Library or Congress.

5. That near the center of this catalogue room there will be an information desk at which a librarian with assistant will be ready to assist readers, show them how to use the catalogue and see that their order slips are correct before they go to the delivery desk. The latest accessions to the library may be at this information desk.

6. There will also be in this room tables and seats for about 25 readers, and about 5000 volumes of reference books on open shelves.

7. That in the special reading rooms in the building, devoted to special subjects, there will be special card catalogues and bibliographical works relating to those subjects, that in most of these rooms the books will be on open shelves and freely accessible to the readers, and there will also be a person in charge of the room competent to assist students in that particular branch.

Supposing that all this is accomplished with not more than the average proportion of errors and shortcomings, how will the result compare — from the reader's point of view — with such a card catalogue as the "repertory" at the International Institute of Bibliography at Brussels (described by Mr. Bowker in the LIBRARY JOURNAL for June, 1900, p. 273), which already contains over 3,000,000 titles?

It is probable that about 99 per cent. of those who consult the New York Public Library would never use such a "repertory" so long as the library catalogue was available. The reason is that in the great majority of cases the library catalogue would indicate enough sources of information to satisfy the wants of the inquirer, and he would know that all these sources of information are in the library, and know by what marks to call for them. If he were to consult the "repertory" his work of search would only be begun after he had copied the titles he desired, for he would then have to find out whether they are in any accessible library.

If a bibliography is a critical or annotated one, showing for each title given whether the book has any special value, or contains anything not to be found in other books, the search might give results worth the trouble, but without such notes or indication of location a long list of titles of books, pamphlets, and journal articles is simply discouraging to the average reader. Fancy being confronted with six thousand titles about Aristotle, or ten thousand titles about ordination sermons, or two thousand titles on the duties of parents, or eleven thousand titles on labor and capital, from which to select more or less blindly those which may have some interest in connection with the question at issue, and then to be compelled to find out where they are! The bibliography of New York colonial history, recently published by the New York State Library, has its value greatly increased by the fact that it indicates where the books may be found.

The most important objection to an alphabetical index catalogue such as that described, is, that it often separates widely the lists pertaining to closely allied subjects, as for example, food, butter, cookery, milk, etc., and while the guide cards for the general subjects will give references to other subjects for details, the student who wishes to find all that the library contains on some rather general subject would prefer to have the catalogue arranged by classes as far as posible.

This objection will be obviated to some extent by the shelf lists which will be prepared in accordance with the new classification, and which will be available for the use of readers, but these shelf lists will not be made until we move into the new building, and the books now divided between the Astor and Lenox buildings can be arranged together. Moreover a shelf list can never take the place of a subject list, because for every subject there are important pamphlets and articles in transactions and periodicals to which the shelf list gives no clue.

One of the questions which arises in the arrangement of the subject cards in a large catalogue like this, is, as to whether in certain subjects, and especially in historical groups, the arrangement should be chronological or alphabetical. Some readers prefer the first, others the second. The alphabetical arrangement is more convenient for the librarian in checking off lists of books on a certain sub-

ject in order to see what the library has, or has not, and it is also usually preferred by the casual reader, who is more accustomed to it, while the chronological order is preferred by the systematic student, and by the reader who wishes to refer to the latest work, or to the oldest work, with the least possible delay. At present we are arranging the cards of titles relating to the history of countries in chronological order, and the same plan has been followed in some of the sciences, such as mathematics, but as yet in many subjects the cards are in alphabetical order, which is easiest for the filers. The general tendency

is to use the chronological arrangement for those subjects which are most likely to be studied historically, either as regards their own origin and development, or as throwing side lights on general history as, for example, Banking, Commerce, Finance, Taxation, Poor laws, etc., but for nearly all such subjects the chronological arrangement is subordinate to that by country.

In conclusion I would say that twenty-five years ago I held much more definite and positive opinions as to how an index catalogue like that of the New York Public Library should be arranged than I do at present.

THE REVISION OF THE LIBRARY OF THE UNIVERSITY OF PENNSYLVANIA.*

BY SUSAN W. RANDALL, University of Pennsylvania Library.

WHEN we say that the University of Pennsylvania Library has been thoroughly revised it is well in the beginning to explain what was its condition before the work was undertaken. The library was classified according to the decimal classification with numerous modifications. The Cutter book number was used in Literature up to 800 and in Biography, while other classes were arranged chronologically, numbered in order of their accession. This, of course, prevented any semblance of an alphabetical arrangement on the shelves. There were two catalogues, author and subject, This was the only record kept of the books. So that when one stops to think of the numerous records which according to modern methods are made of a book between the time of its arrival in the library and the time when it is put on the shelves for circulation, one will at once see that it would have been a less difficult task to have catalogued an entirely new library.

As soon as Dr. Jastrow was appointed librarian he at once agitated the question of a revision. As he had for many years filled the position of assistant librarian, and had also at the same time been a member of the university faculty, he knew the great need of the work, not only from the librarian's standpoint but also from the requirements of a professor. The trustees looked with favor upon any plan which would further the useful-

ness of the library, but as it was a vast piece of work the question of funds to defray the expense was most vital. It was decided to start the work in a small way, and in June, 1898, extra workers were engaged and the revision had its beginning. The first classes to be started were Literature, American History and Bibliography. Every book was reclassified and marked thoroughly for the cataloguers. The books were then accessioned, catalogued, self-listed, labelled and book cards written. By the fall there had been finished 10,551 volumes. The cards for these had been kept separate, forming a third catalogue. When the time drew near for college to open, it was decided to throw the three catalogues together in one alphabet, which was in itself a great undertaking and called forth much adverse criticism. But looking back upon the work it is plain to me that it was the proper thing to do and saved time, as will be shown later.

If the extent of the work was not understood before, it became most apparent now. At the rate the work had been done it was evident that if continued in the same way it would cover many years, keeping the library in a constant state of chaos and a large number of books from circulation. At this point a friend of the university, who fully realized the value of the library and how much its usefulness would be enhanced by an entire revision, offered to pay the entire cost if the work could be finished in two years. The

^{*} Read at Joint Library Meeting, Atlantic City, N. J., March 22, 1901.